

WHAT IS CLAIMED IS:

1. A method for cost accounting of data usage over a network by network users,
the network having a plurality of internal IP addresses and access to a plurality of
5 external IP addresses over the Internet, the method comprising the steps of:
- (a) detecting data packets having a source and destination IP address
moving over the network;
 - (b) classifying the detected data packets based on the source and
10 destination address;
 - (c) assigning the classified data packets to a network user;
 - (d) costing the classified data packets based on a predetermined costing
scheme; and
 - (e) accumulating and storing the costed data packets based on the assigned
15 user.
2. The method of claim 1, wherein step b) of classifying the detected data packets
includes in one of at least the following four categories:
- 20 internal IP address to internal IP address;
 - internal IP address to external IP address;
 - external IP address to internal IP address; and
 - external IP address to external IP address.
3. The method of claim 1, wherein step c) of assigning the classified data packets
to the network user includes identifying an IP address to a network user based on
network log-on data.
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4. The method of claim 1, wherein the predetermined costing scheme of step d) includes a costing factor based on the amount of bandwidth utilization at the time the data packet is detected.

5 5. The method of claim 1, wherein the costing step d) includes a filtering process to exclude certain predetermined data packets from the costing step.

6. The method of claim 1, further including the step of transferring the accumulated and stored costed data packets to a host computer over the Internet.

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7. A programmable device for cost accounting of data usage over a network by network users, the network having a plurality of internal IP addresses and access to a plurality of external IP addresses over the Internet, the device comprising:

15 a network controller for interfacing with the network and detecting data packets having a source and destination IP address moving over the network;

20 a processor having a content-addressable memory, the processor classifying the detected data packets based on the source and destination address and assigning the classified data packets to a network user by matching the source and destination addresses against a cross-reference table of IP addresses to network users stored in the content-addressable memory, the processor costing the classified data packets based on a
25 predetermined costing scheme; and

a dynamic random access memory for accumulating and storing the costed data packets based on the assigned user.

8. A system for web hosting applications for managing one or more telecommunications devices connected to a local network comprising:

5 a host computer having a telecommunications management program and being connected to the Internet, the host computer sending high level telecommunications commands and management data over the Internet by a secure encrypted communication medium; and

10 a local programmable device for managing local telecommunications devices, the local programmable device being connected to a local network by a secure encrypted communication medium, one or more telecommunications devices being connected to the local programmable device through the local network, one or more telecommunications devices being directly connected to the local programmable device, the local programmable device collecting data from the
15 one or more telecommunications devices and creating data records based on predetermined criteria, the local programmable device monitoring and controlling the one or more telecommunications devices based on commands from the host computer.

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